These four observational child care quality measures tended to be highly related, with correlations from .74–.91 among the ECERS classroom environment, CIS teacher sensitivity, and ECOF teaching style, and from .26–.31 between the AIS teacher responsiveness and the other measures. Therefore, a single composite quality index was computed. A principal component analysis (PCA) of the four measures indicated that one factor accounted for 68% of the total variance, and that subsequent factors were unnecessary. The composite observed child care quality index was calculated for each classroom based on this principal component, computed as a z-score (M = 0, SD = 1).

In addition, a fifth measure, the *Peer Play Scale* (Howes & Matheson, 1992) was used to examine the level of peer play. For this instrument, the same two children (one boy and one girl) who were randomly selected for the AIS were observed for three observations of five minutes each. The children's level of play with peers was coded on an 8-point scale of solitary play, onlooker behavior, parallel play without awareness of the peer, parallel play with eye contact, simple social play, complementary and reciprocal play, cooperative pretend play, and complex pretend play. Since scores on the scale are confounded with age, all individual scores were adjusted for child age. Two scores were used in analyses reported in this report: the average percent time target children spent in interactive peer play (the four upper points of the scale) and the percent of interactive play spent in pretend play (the two upper points of the scale). The average interrater reliability using Cohen's kappa was .93 (range = .86-.95).

For the kindergarten year, a shortened version of the ECERS was used, based on items that were readily observable, appropriate to the kindergarten setting, and highly correlated with the overall score from the first year's data. This 5-item version of the ECERS was completed while assessors were in the classrooms for the child assessments. The total mean-item score for the kindergarten short ECERS was used for purposes of analysis (alpha=.83).

In second grade, we used a modified version of the *Instructional Environment Observation Scales* (IEOS; Secada, 1997), an instrument designed specifically to measure the instructional environment of second and third grade classrooms. The IEOS requires observers to rate a number of characteristics of the classroom environments that students experience and yields information relevant to the domains measured in previous years. This measure includes six subscales: classroom routines, classroom climate, cross-disciplinary connections, linkages to life beyond the classroom, social support for student learning, and student engagement. Each item is measured on a 1 to 5 scale. Interrater reliabilities using Cohen's Kappa for the six subscales ranged from .50 to .79, with a median of .64. A principal component analysis performed on the data from the IEOS yielded two factors. The first factor, general climate, included the classroom routines, classroom climate, social support for student learning, and student engagement subscales (alpha=.84). The second factor, linkages, included the cross-disciplinary connections and linkages to life beyond the classroom subscales (alpha=.79).

Another aspect of children's experiences in child care, kindergarten, and second grade was measured by teachers' ratings of their relationship with each participating child using the *Student-Teacher Relationship Scale* (STRS; Pianta, 1992). This measure contains 30 items rated on a 5-point scale indicating how characteristic they are of the particular teacher-child relationship, from definitely does not apply (1) to definitely applies (5). Items are summed into three factors representing different aspects of the teacher-child relationship: closeness (11 items), conflict (12 items), and overdependency (5 items). Based on the first year data, the internal consistency within this sample was very good for the conflict (.91) and closeness (.86) factors and acceptable for overdependency (.61).

Child assessment measures. Information pertaining to children's cognitive and socio-emotional functioning was gathered from individual assessments and from teacher ratings each year.

Individual child assessments were conducted using two instruments. Receptive language ability was measured using the *Peabody Picture Vocabulary Test-Revised,* (PPVT-R; Dunn & Dunn, 1981), and letter-word recognition